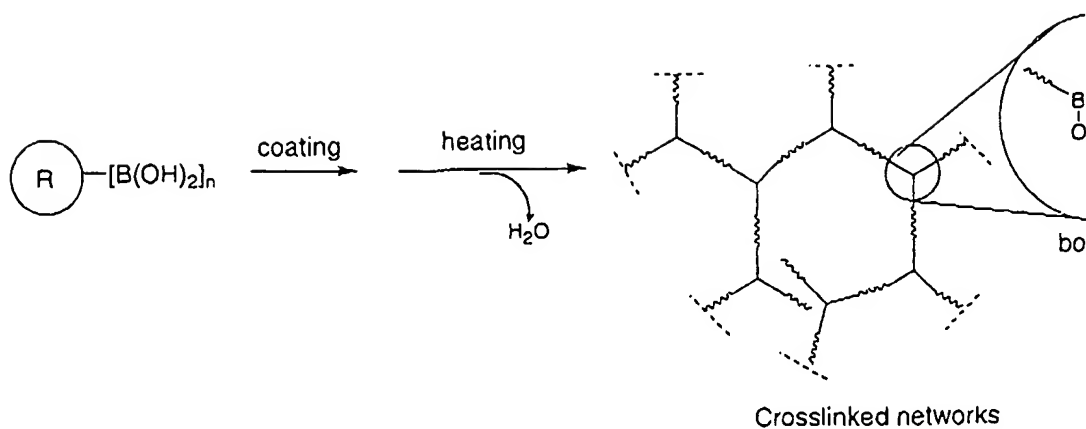
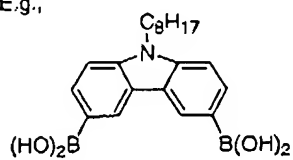


10/534087

 $n = \text{or} > 1$; R = organic or organometallic complex moiety including oligomer and polymer.

E.g.,



(CzBA)

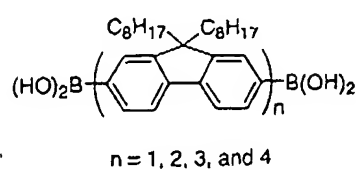
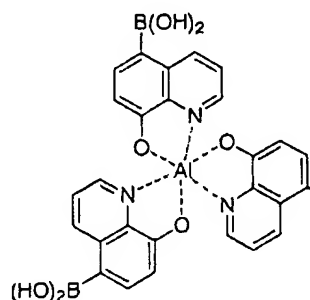
 (F_nBA) 

Fig. 1

10/534087

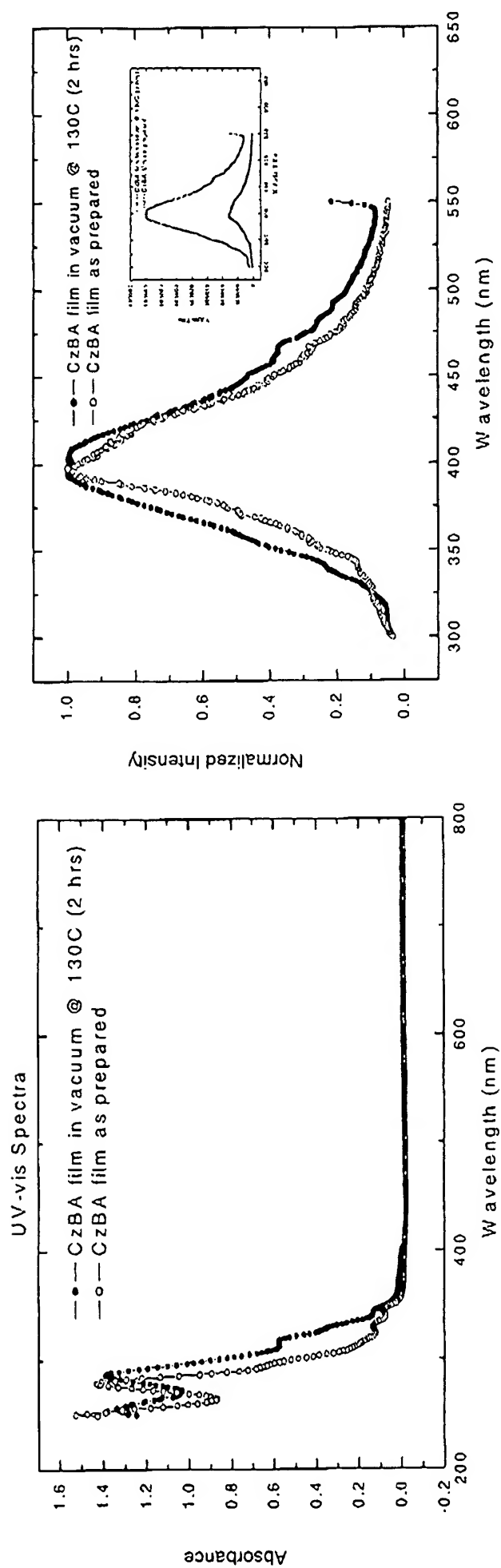


Fig. 2

10/534087

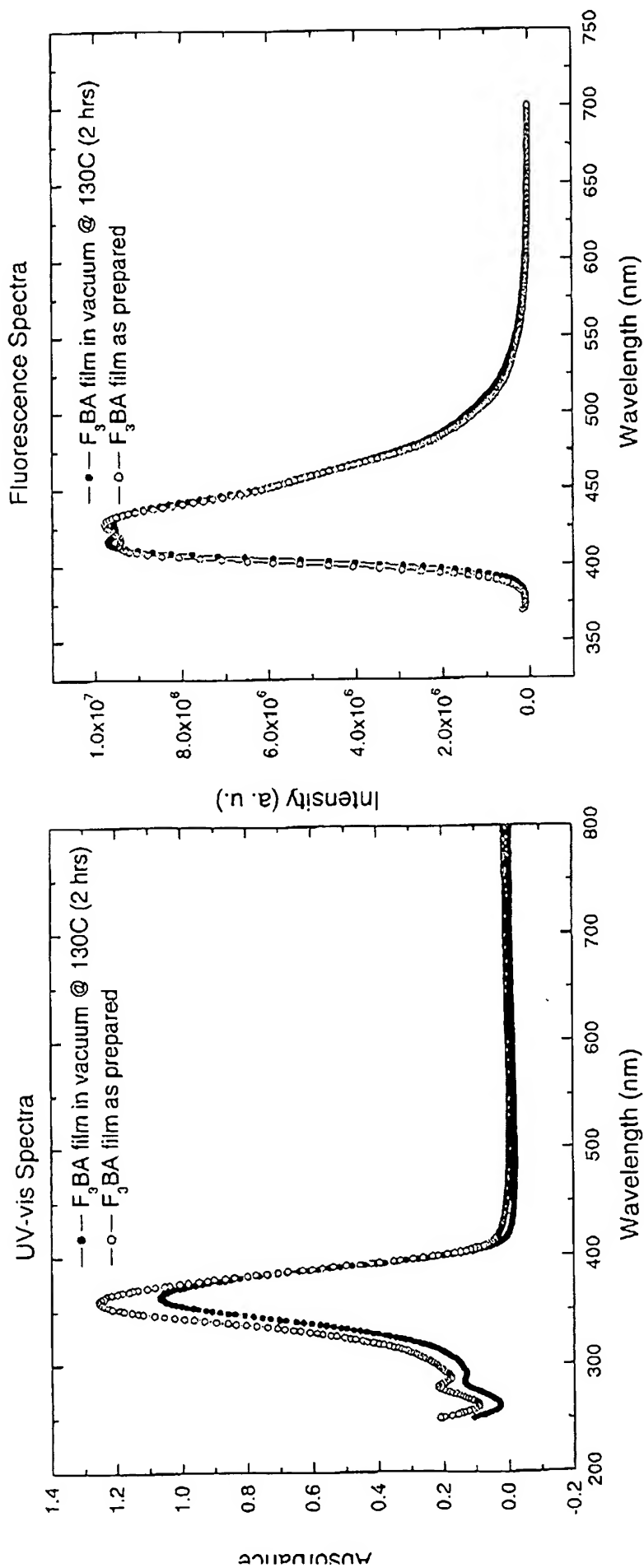


Fig. 3

10/534087

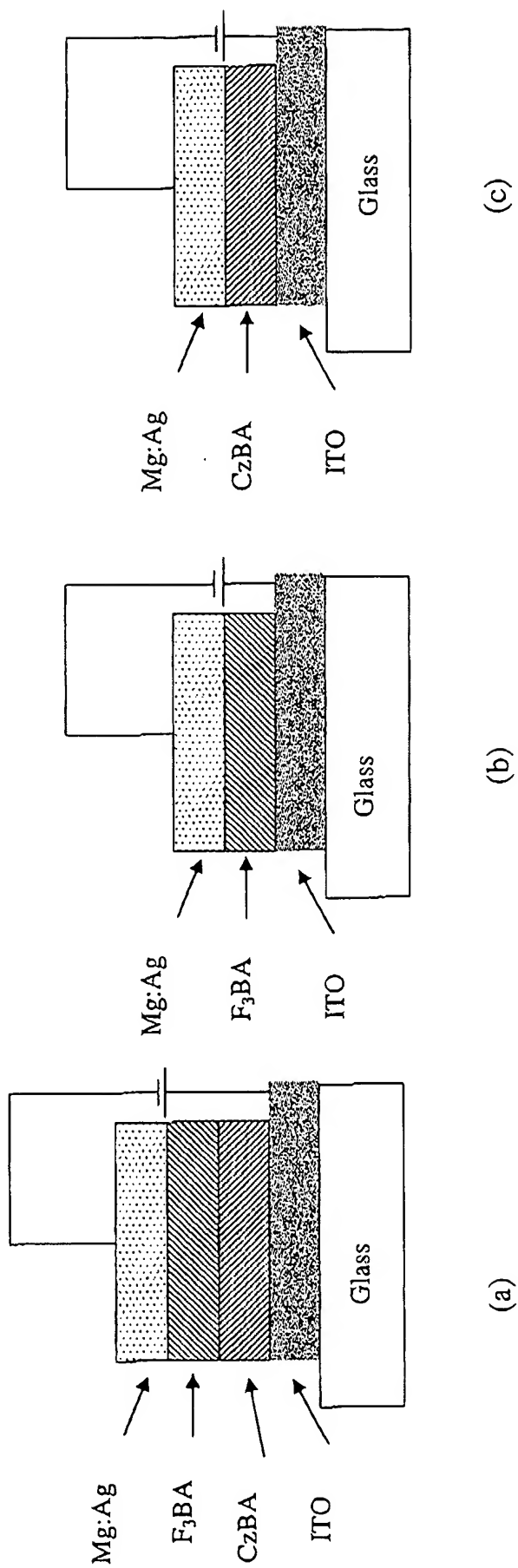


Fig. 4

10/534087

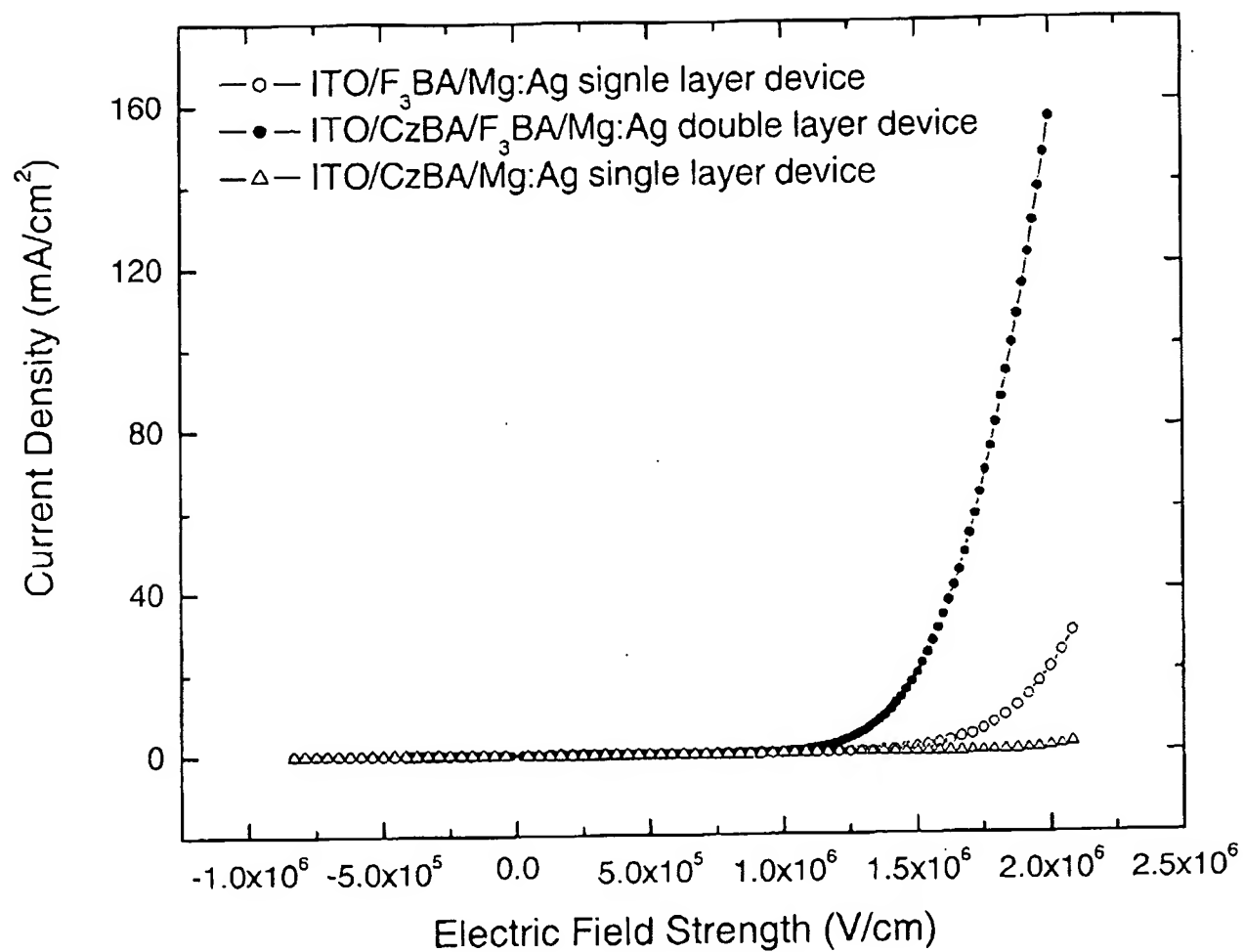


Fig. 5

10/534087

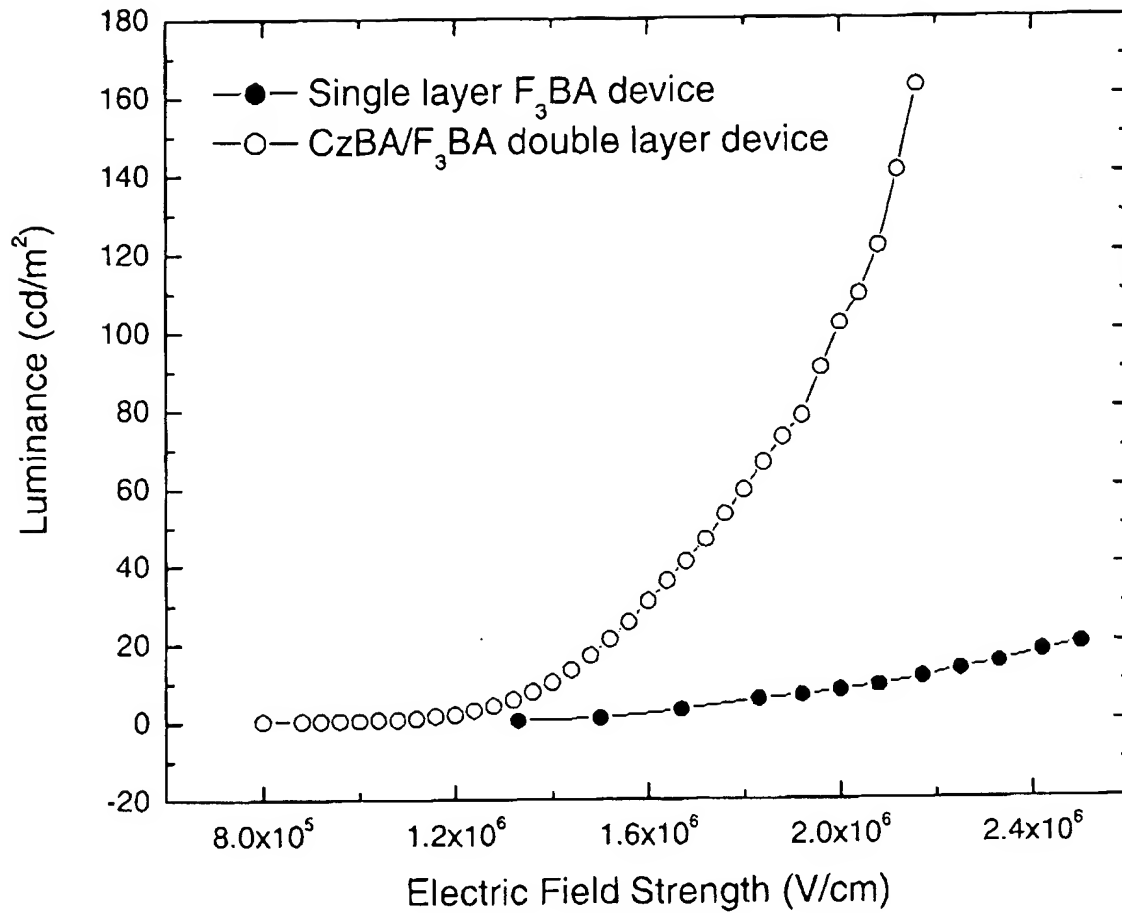


Fig. 6

10/534087

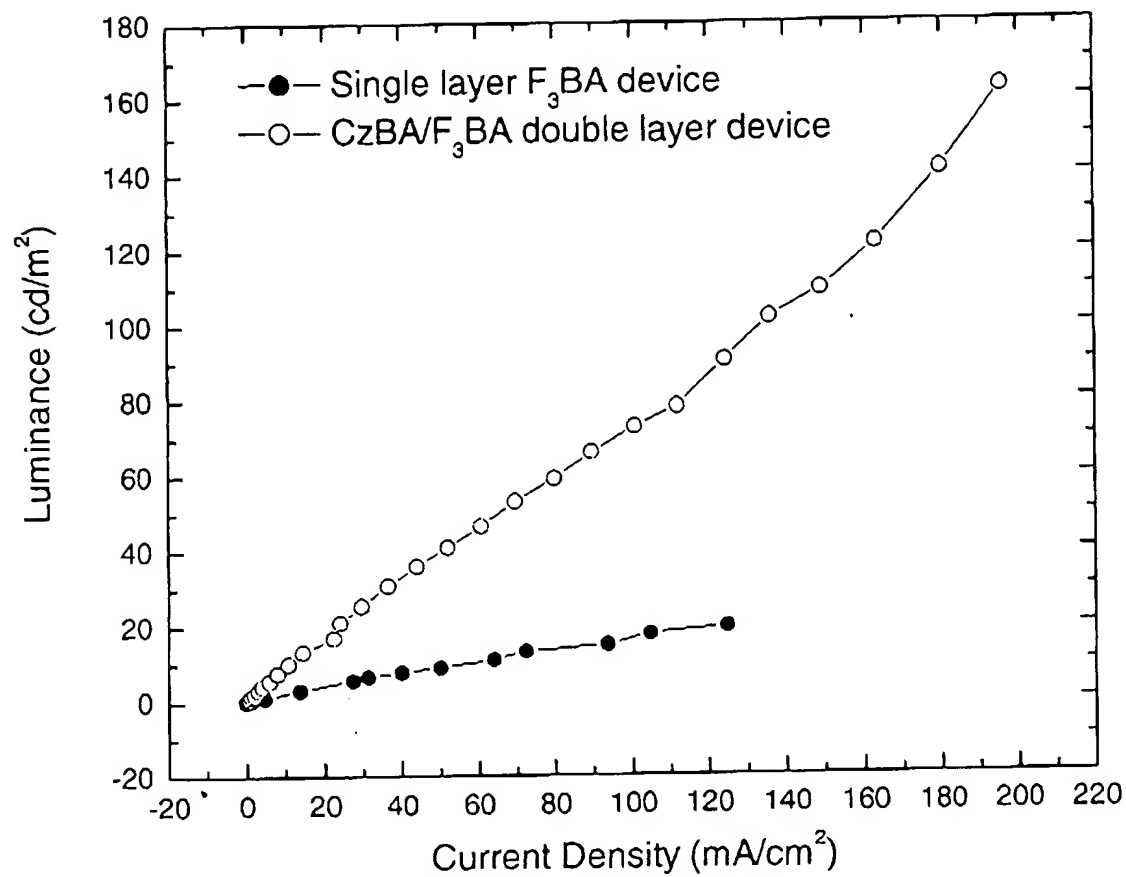


Fig. 7

10/534087

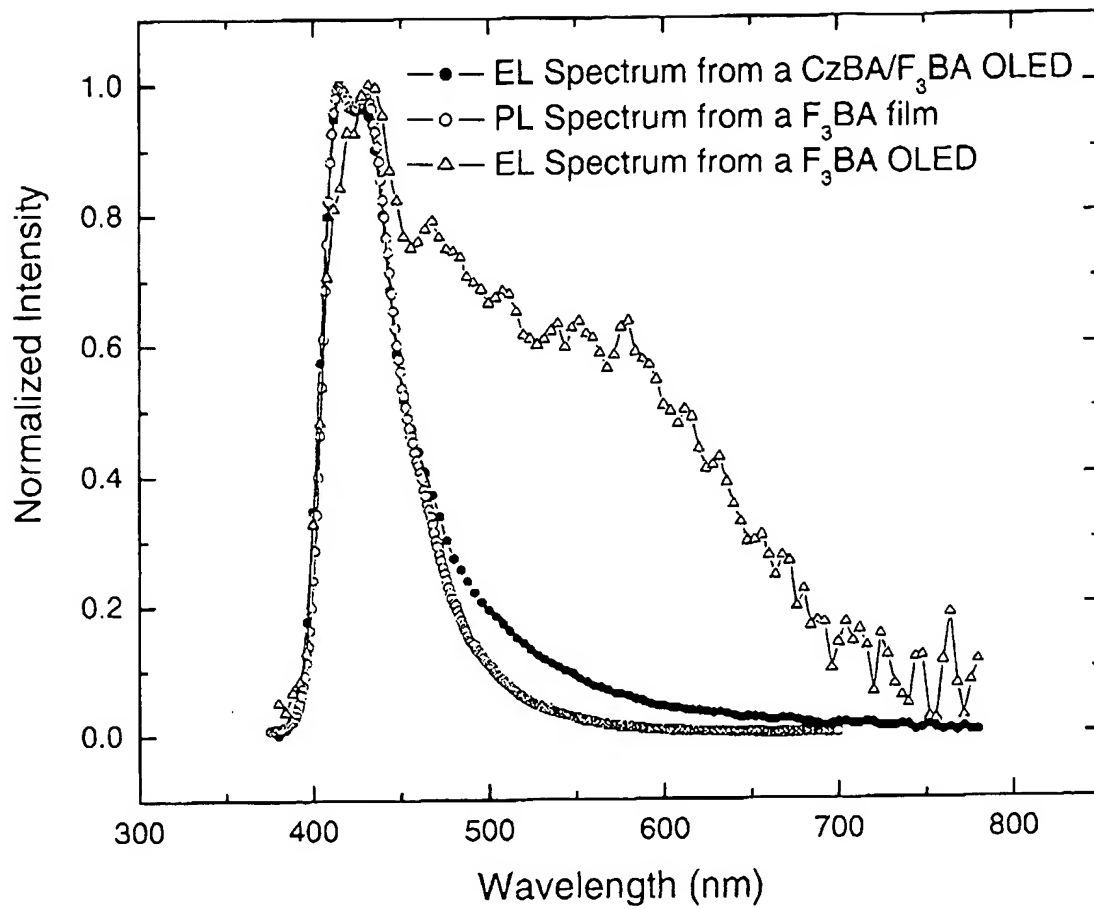


Fig. 8

10/534087

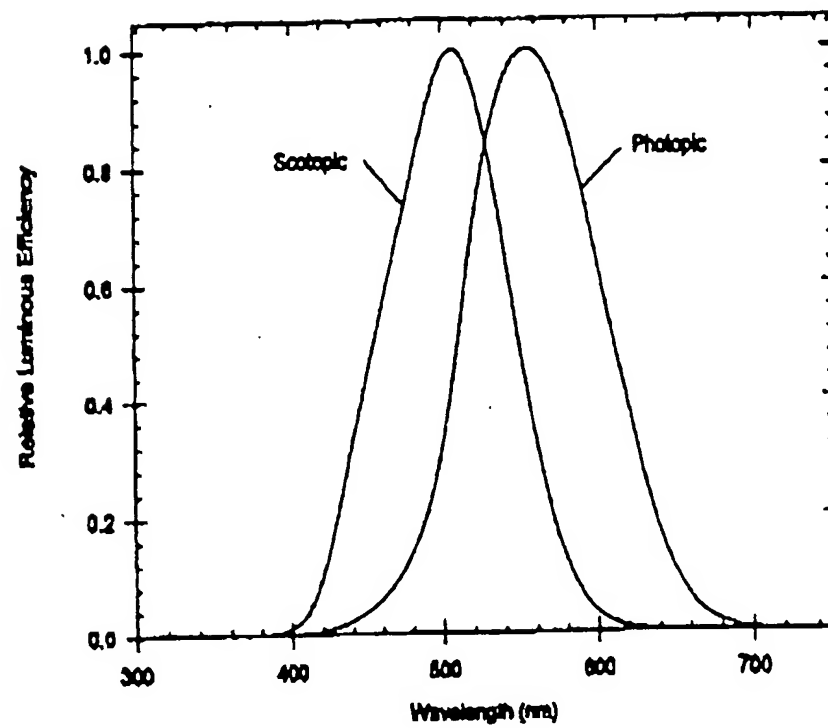
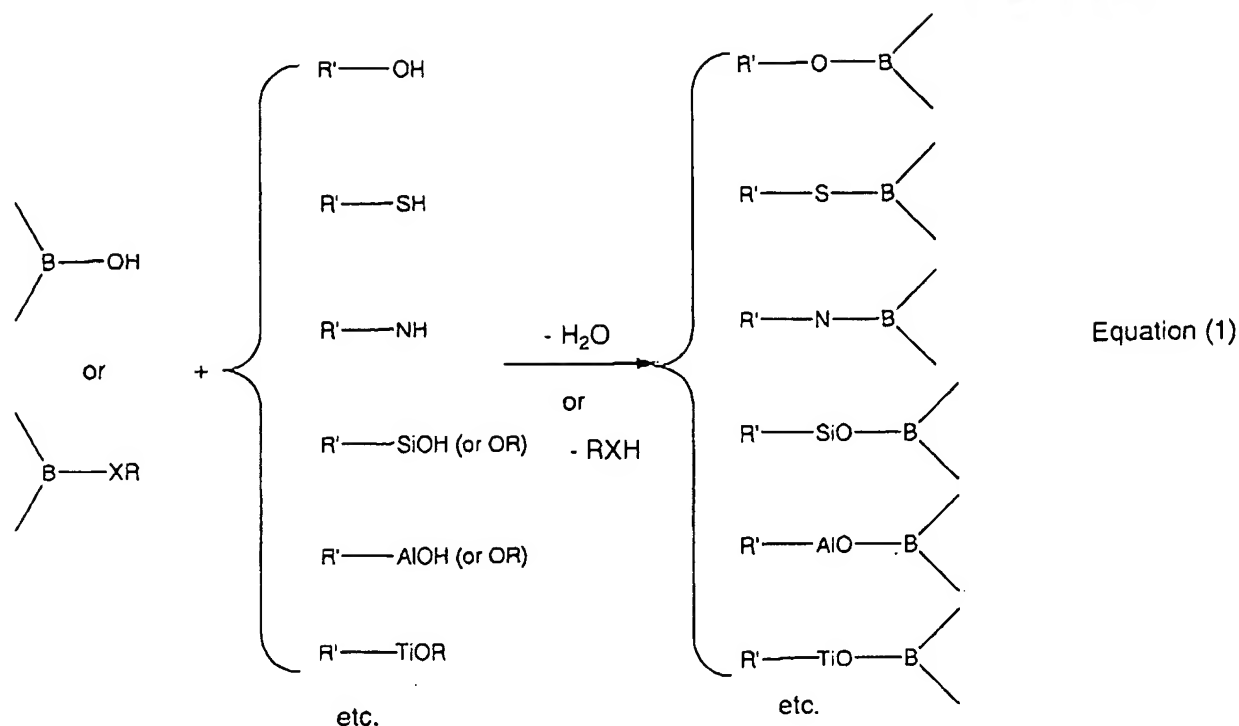
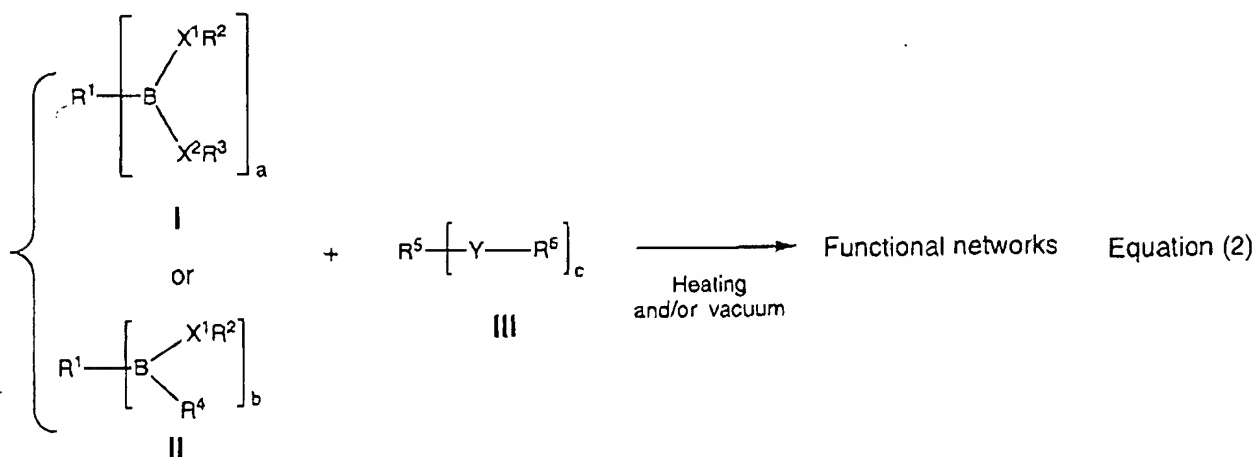


Fig. 9

10/534087



wherein, X = O, S, N; R and R' = alkyl, aryl, or any other organic and inorganic structures or groups.



wherein,

R¹, R⁴, and R⁵ = alkyl, aryl, or other groups, either organic or inorganic, but at least one of them contains functionality; they can be of small molecular weights or high molecular weights.

R², R³, R⁶ = H, alkyl, aryl, they may be same or different, but at least one of them is H.

X¹, X² = O, S, or N, they may be same or different.

Y = O, S, N (or NH), SiO, AlO, TiO, etc.

a, b, c are equal to or larger than one, but at least either a (or b) or c is larger than one.

Fig. 10

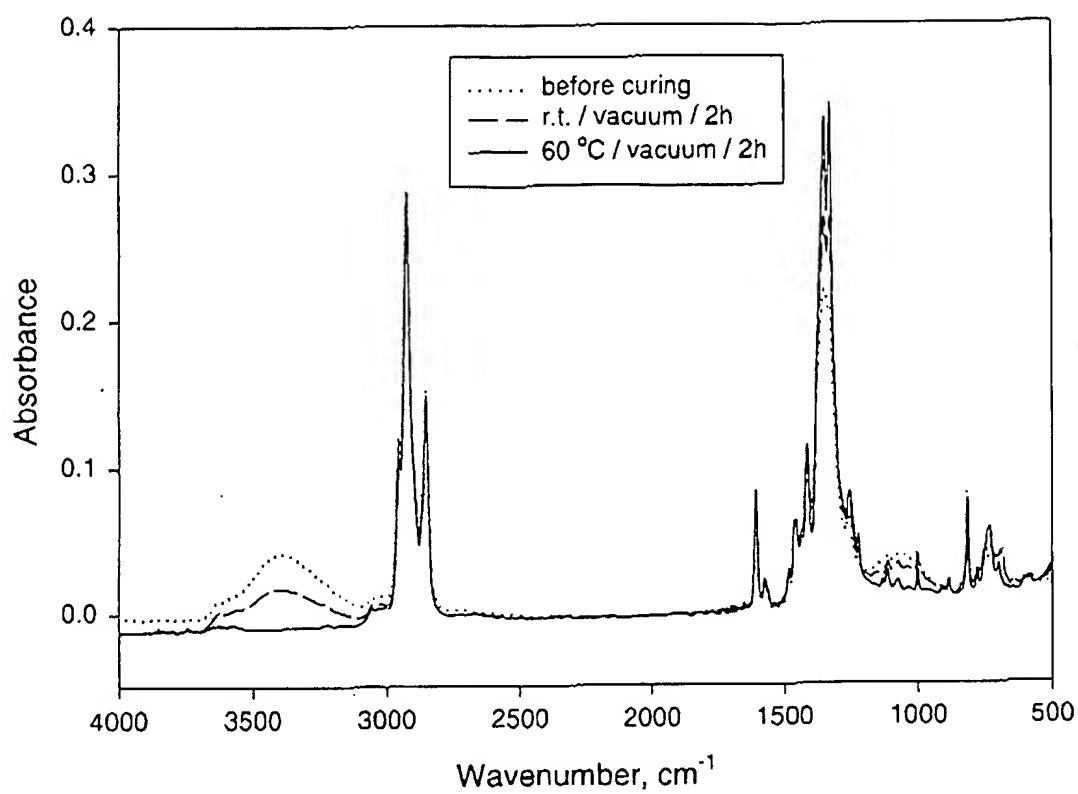
10/534087

Fig. 11

10/534087

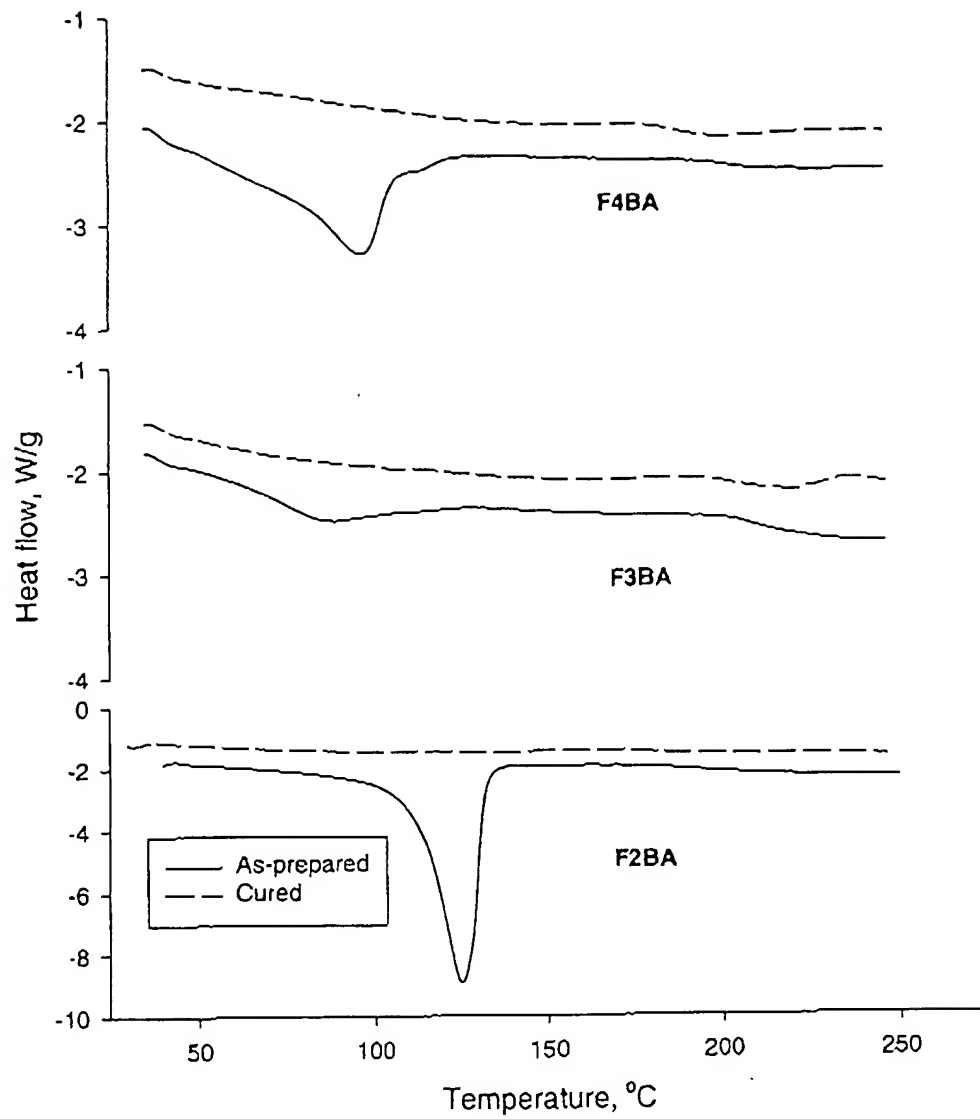


Fig. 12

10/534087

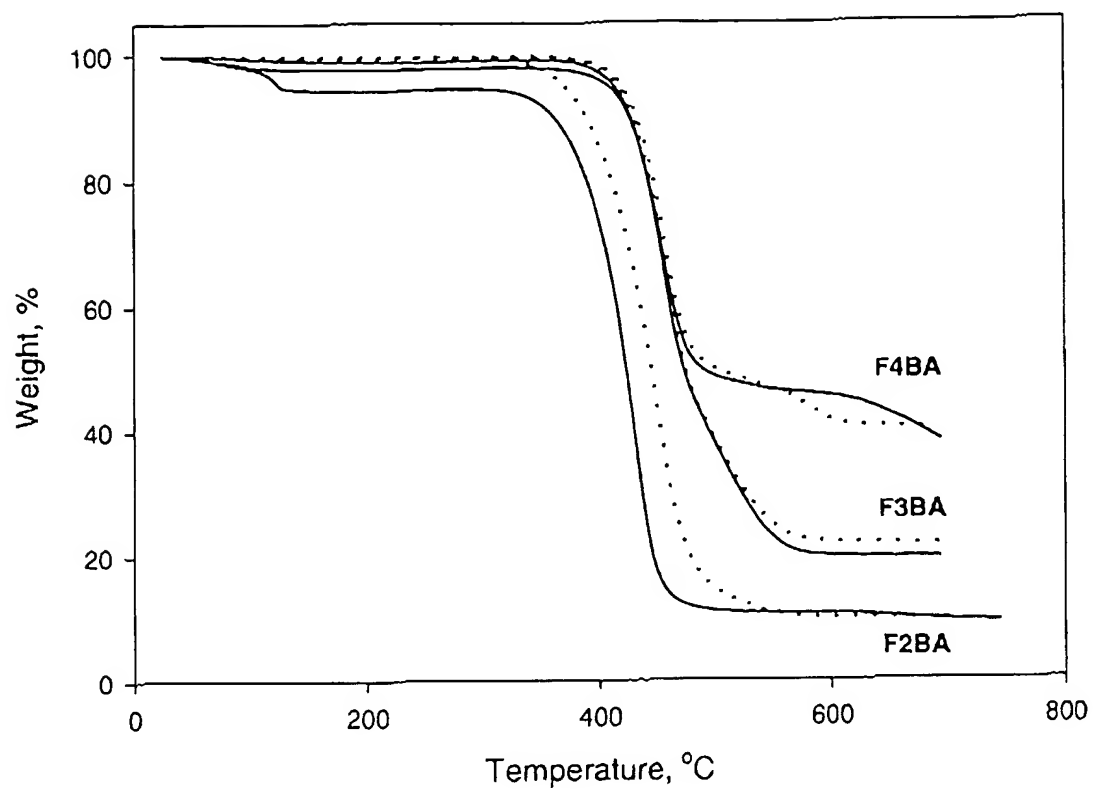
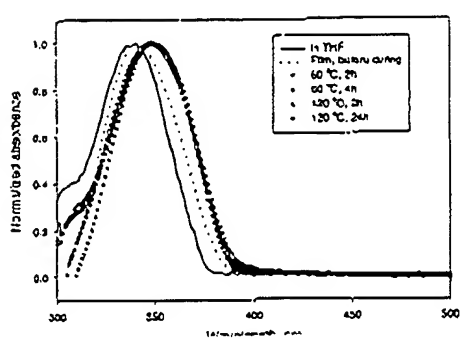
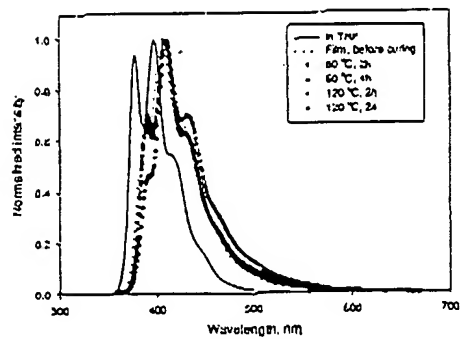


Fig. 13

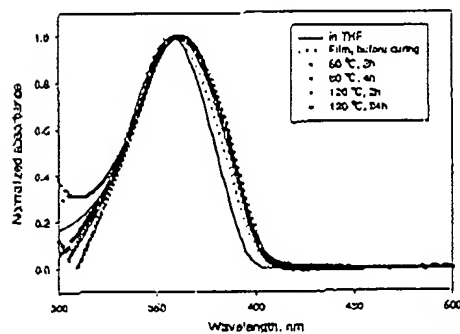
10/534087



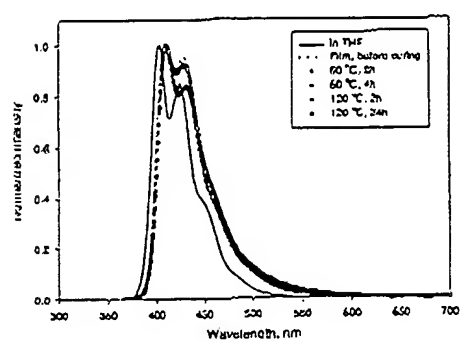
(a)



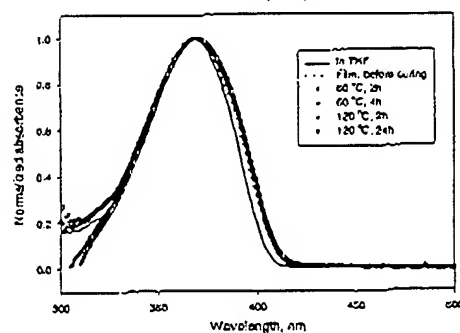
(a)



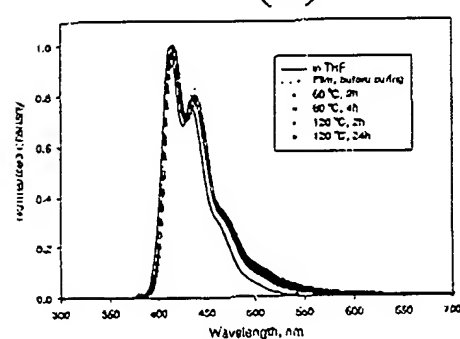
(b)



(b)



(c)



(c)

Fig. 14

10/534087

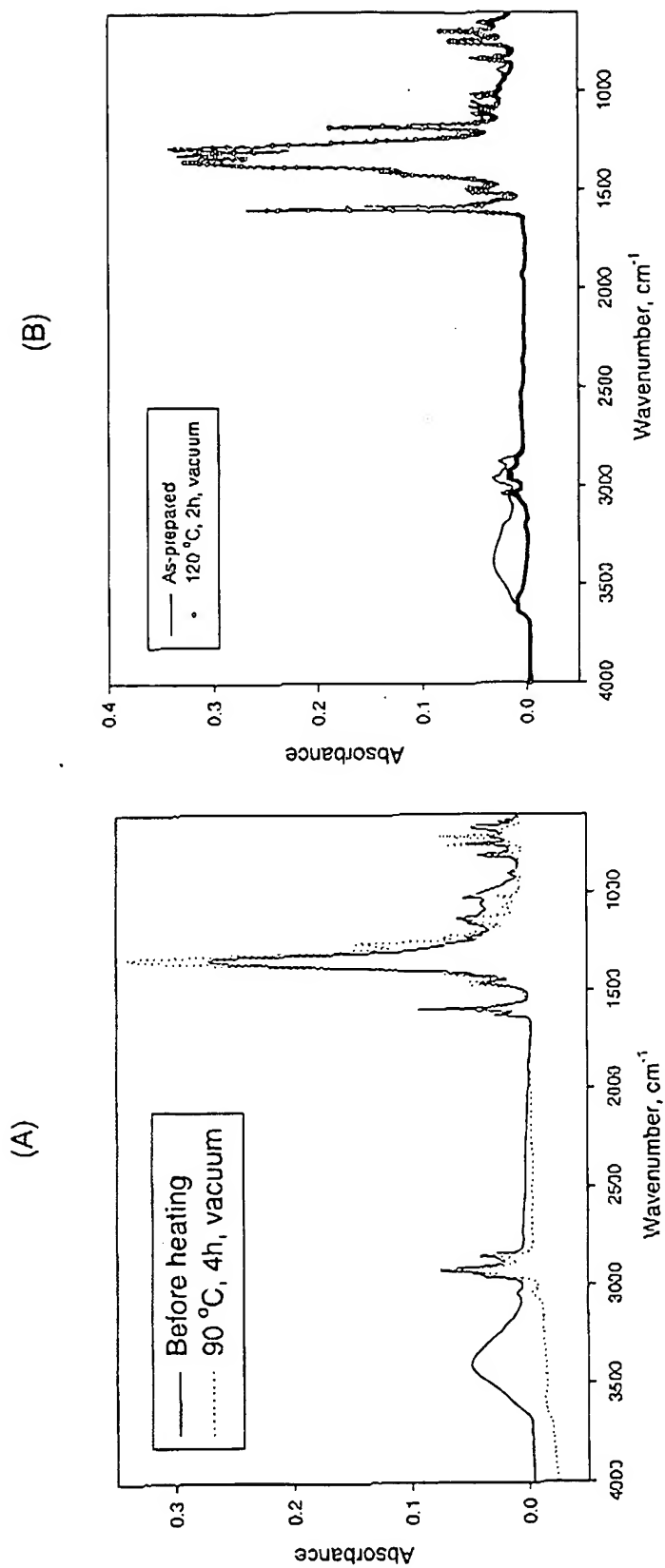


Fig. 15

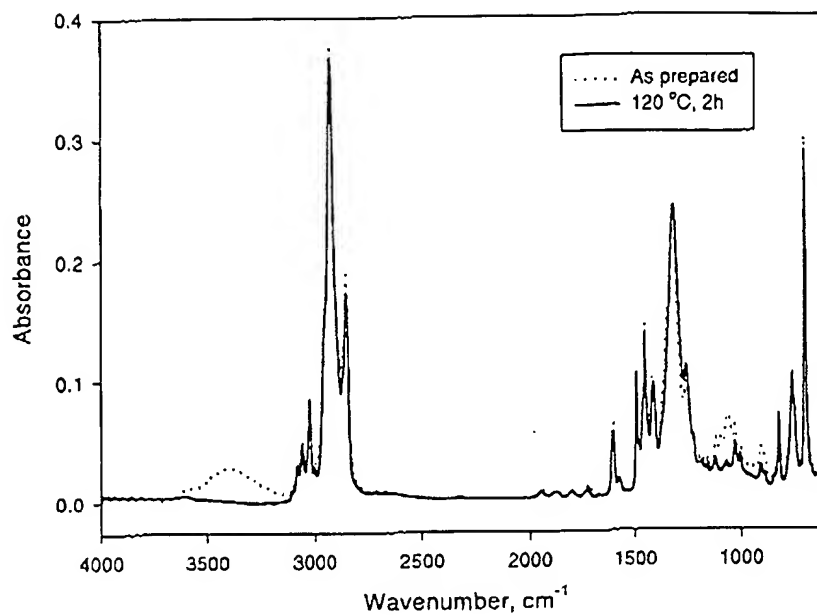
10/534087

Fig. 16

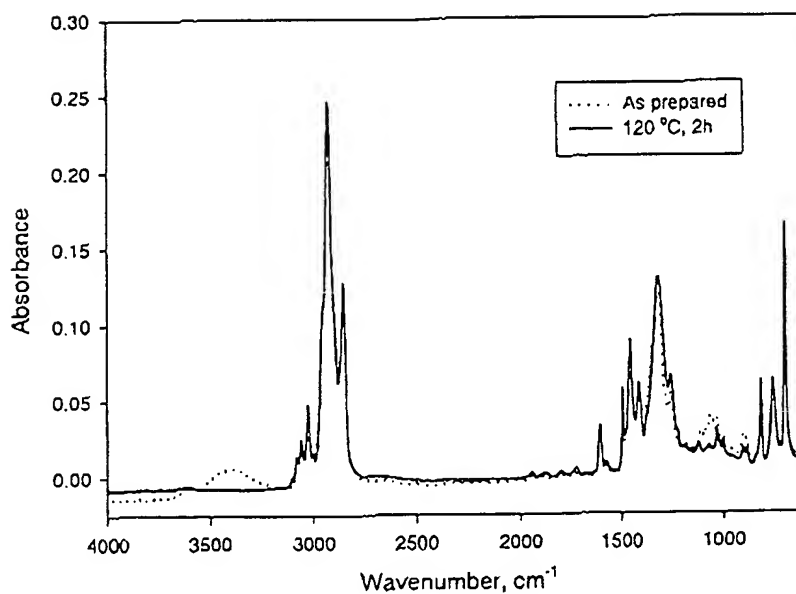


Fig. 17

10/534087

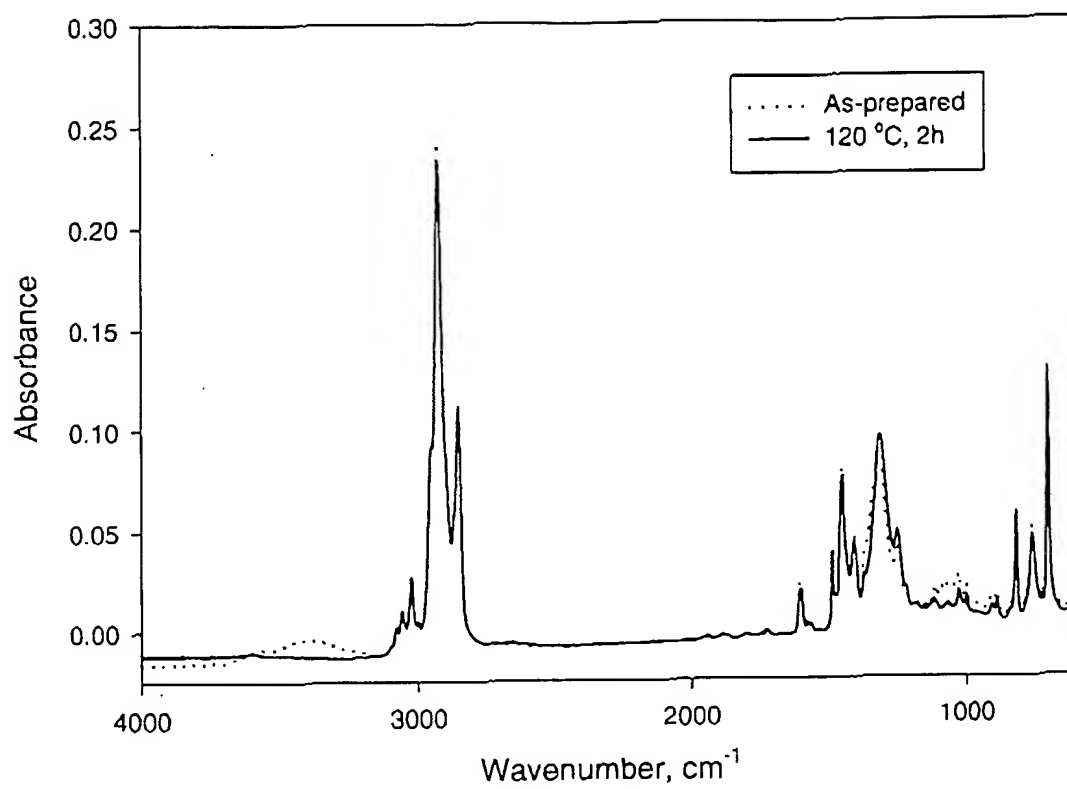


Fig. 18

10/534087

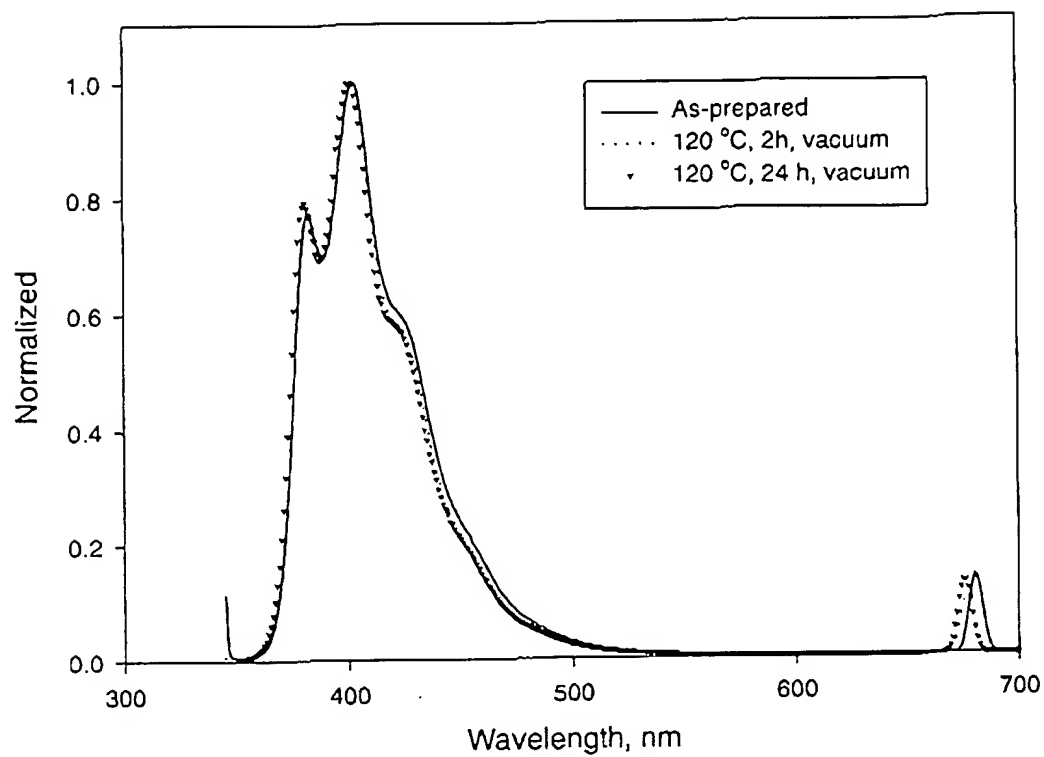


Fig. 19

10/534087

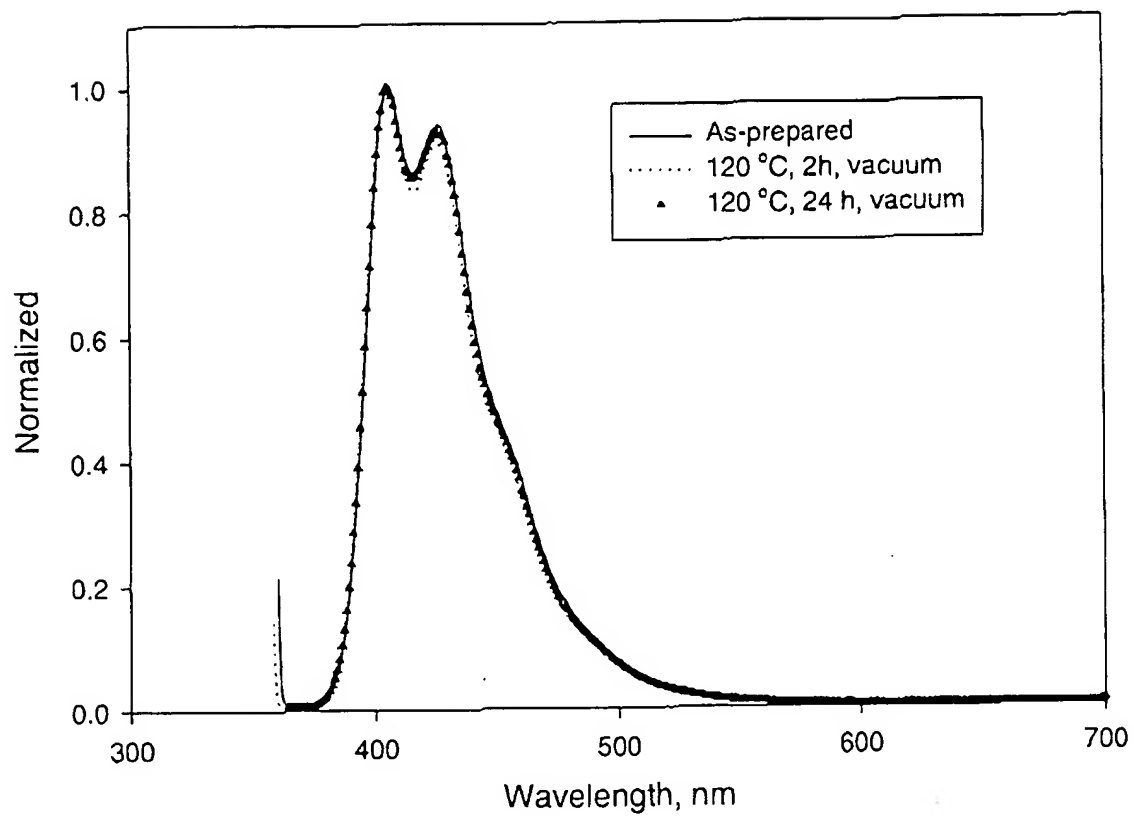


Fig. 20

10/534087

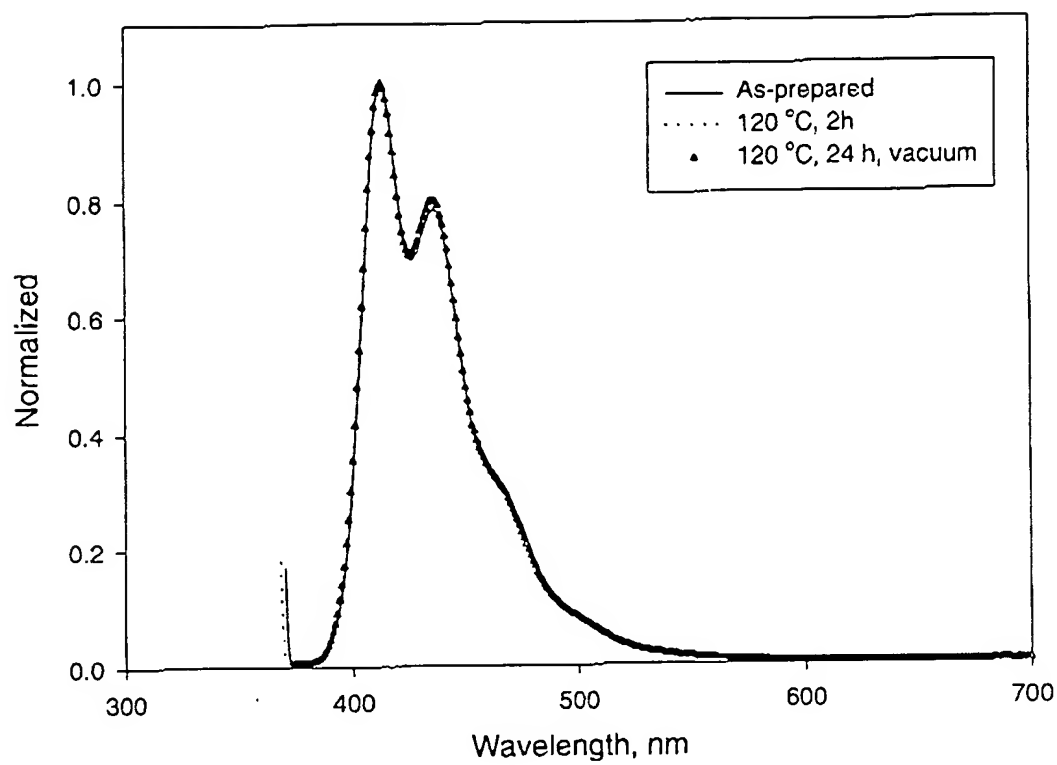


Fig. 21

10/534087

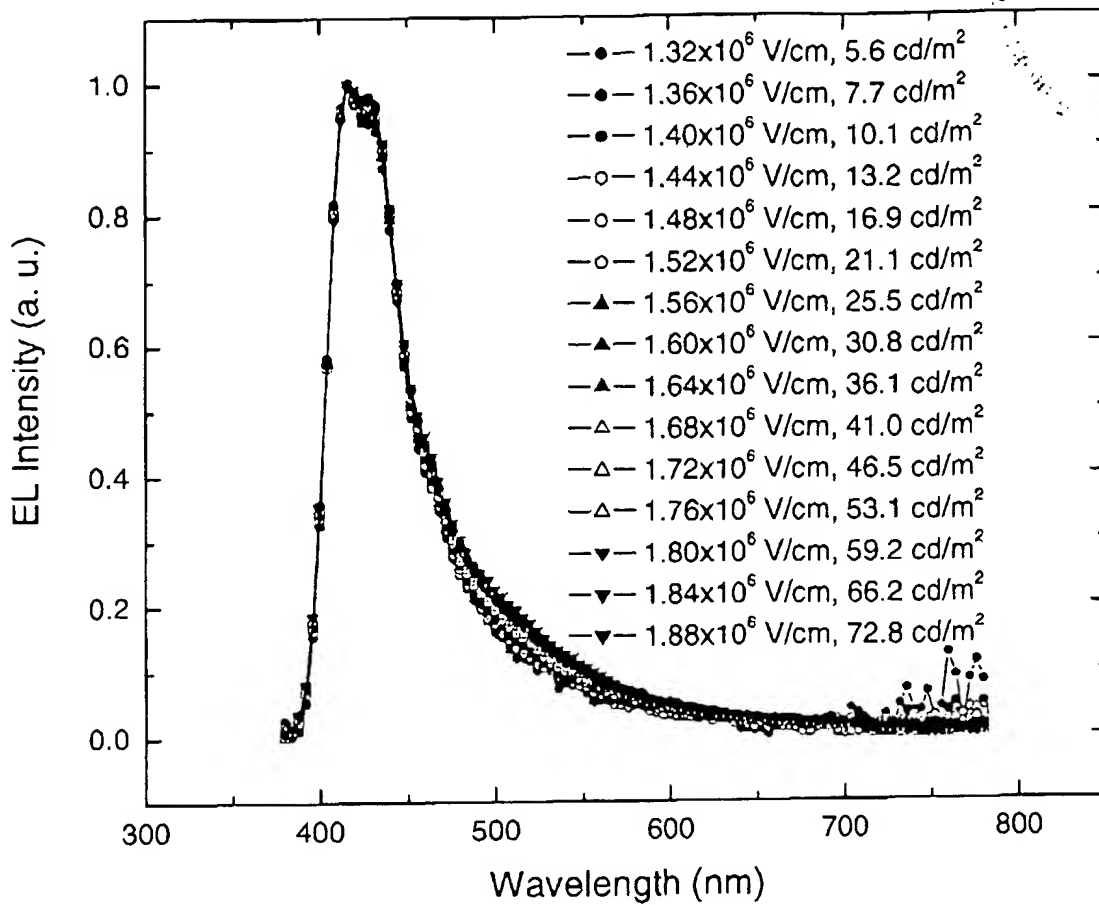


Fig. 22